Attorney Docket No. 120785.00311 Serial No. 10/670,490 Inventor: Barnes

Inventor: Barnea
Paper dated May 30, 2007

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AMENDMENTS TO THE CLAIMS:

This listing of the claims replaces any and all prior versions and listings of claims in the application:

Claims 1-8 (Canceled)

9. (Currently amended) A method of inhibiting the proliferation of cancer cells in a subject comprising administering, to the subject, an effective amount of at least one an isolated peptide having a sequence selected from:

Cys Val His Ala Tyr Arg Ser (SEQ ID NO:1);

Cys Val His Ala Tyr Arg Ala (SEQ ID NO:2);

Cys Val His Ala Phe Arg Ser (SEQ ID NO:3);

Cys Val His Ala Phe Arg Ala (SEQ ID NO:4);

Cys Val His Ser Tyr Arg Ser (SEQ ID NO:5);

Cys Val His Ser Tyr Arg Ala (SEQ ID NO:6);

Cys Val His Ser Phe Arg Ser (SEQ ID NO:7);

Cys Val His Ser Phe Arg Ala (SEQ ID NO:8);

Cys Val His Thr Tyr Arg Ser (SEQ ID NO:9);

Cys Val His Thr Tyr Arg Ala (SEQ ID NO:10);

Cys Val His Thr Phe Arg Ser (SEQ ID NO:11); and

Cys Val His Thr Phe Arg Ala (SEQ ID NO:12); and a combination thereof

wherein the peptide exhibits an antiproliferative activity.

- 10. (Original) The method of claim 9, where the cancer cells are breast cancer cells.
- 11. (Original) The method of claim 9, where the cancer cells are lung cancer cells.
- 12. (Original) The method of claim 9, where the cancer cells are colon cells.
- 13. (Original) The method of claim 9, where the cancer cells are melanoma cells.
- 14. (Original) The method of claim 9, where the cancer cells are leukemia cells.

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15. (Currently amended) A method of inhibiting the proliferation of viral infection in a subject comprising administering, to the subject, an effective amount at least one an isolated peptide having a sequence selected from:

Cys Val His Ala Tyr Arg Ser (SEQ ID NO:1);
Cys Val His Ala Tyr Arg Ala (SEQ ID NO:2);
Cys Val His Ala Phe Arg Ser (SEQ ID NO:3);
Cys Val His Ala Phe Arg Ala (SEQ ID NO:4);
Cys Val His Ser Tyr Arg Ser (SEQ ID NO:5);
Cys Val His Ser Tyr Arg Ala (SEQ ID NO:6);
Cys Val His Ser Phe Arg Ser (SEQ ID NO:7);
Cys Val His Ser Phe Arg Ala (SEQ ID NO:8);
Cys Val His Thr Tyr Arg Ser (SEQ ID NO:9);
Cys Val His Thr Tyr Arg Ala (SEQ ID NO:10);
Cys Val His Thr Phe Arg Ser (SEQ ID NO:11); and
Cys Val His Thr Phe Arg Ala (SEQ ID NO:12); and a combination thereof

wherein the peptide exhibits an antiproliferative activity.

- 16. (Original) The method of claim 15, where the virus is human immunodeficiency virus type 1.
- 17. (Original) The method of claim 15, where the virus is a Bunyavirus.
- 18. (Original) The method of claim 15, where the virus is a Togavirus.
- 19. (Original) The method of claim 15, where the virus is a Reovirus.
- 20. (Original) The method of claim 15, where the virus is a Herpevirus.
- 21. (Original) The method of claim 15, where the virus is a Poxvirus.
- 22. (Currently amended) An isolated peptide having a sequence selected from the group consisting of:

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Cys Val His Ala Tyr Arg Ser (SEQ ID NO:1);
Cys Val His Ala Tyr Arg Ala (SEQ ID NO:2);
Cys Val His Ala Phe Arg Ser (SEQ ID NO:3);
Cys Val His Ala Phe Arg Ala (SEQ ID NO:4);
Cys Val His Ser Tyr Arg Ser (SEQ ID NO:5);
Cys Val His Ser Tyr Arg Ala (SEQ ID NO:6);
Cys Val His Ser Phe Arg Ser (SEQ ID NO:7);
Cys Val His Ser Phe Arg Ala (SEQ ID NO:7);
Cys Val His Ser Phe Arg Ala (SEQ ID NO:8);
Cys Val His Thr Tyr Arg Ser (SEQ ID NO:9);
Cys Val His Thr Tyr Arg Ala (SEQ ID NO:10);
Cys Val His Thr Phe Arg Ser (SEQ ID NO:11); and
Cys Val His Thr Phe Arg Ala (SEQ ID NO:12).
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- 23. (Canceled)
- 24. (Canceled)
- 25. (Currently amended) A composition comprising an excipient and <u>at least one</u> an isolated peptide having a sequence <u>consisting essentially of selected from</u>:

Cys Val His Ala Tyr Arg Ser (SEQ ID NO:1);
Cys Val His Ala Tyr Arg Ala (SEQ ID NO:2);
Cys Val His Ala Phe Arg Ser (SEQ ID NO:3);
Cys Val His Ala Phe Arg Ala (SEQ ID NO:4);
Cys Val His Ser Tyr Arg Ser (SEQ ID NO:5);
Cys Val His Ser Tyr Arg Ala (SEQ ID NO:6);
Cys Val His Ser Phe Arg Ser (SEQ ID NO:7);
Cys Val His Ser Phe Arg Ala (SEQ ID NO:7);
Cys Val His Ser Phe Arg Ala (SEQ ID NO:8);
Cys Val His Thr Tyr Arg Ser (SEQ ID NO:9);
Cys Val His Thr Tyr Arg Ala (SEQ ID NO:10);
Cys Val His Thr Phe Arg Ser (SEQ ID NO:11); or
Cys Val His Thr Phe Arg Ala (SEQ ID NO:12); and

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a combination thereof.

26. (New) A method of inhibiting proliferation of cancer cells in a subject comprising administering to the subject an effective amount of at least one isolated peptide having a sequence consisting essentially of:

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Cys Val His Ala Tyr Arg Ser (SEQ ID NO:1);
Cys Val His Ala Tyr Arg Ala (SEQ ID NO:2);
Cys Val His Ala Phe Arg Ser (SEQ ID NO:3);
Cys Val His Ala Phe Arg Ala (SEQ ID NO:4);
Cys Val His Ser Tyr Arg Ser (SEQ ID NO:5);
Cys Val His Ser Tyr Arg Ala (SEQ ID NO:6);
Cys Val His Ser Phe Arg Ser (SEQ ID NO:7);
Cys Val His Ser Phe Arg Ala (SEQ ID NO:8);
Cys Val His Thr Tyr Arg Ser (SEQ ID NO:9);
Cys Val His Thr Tyr Arg Ala (SEQ ID NO:10);
Cys Val His Thr Phe Arg Ser (SEQ ID NO:11); or
Cys Val His Thr Phe Arg Ala (SEQ ID NO:12).
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27. (New) A method of inhibiting proliferation of viral infection in a subject comprising administering to the subject an effective amount of at least one isolated peptide having a sequence consisting essentially of:

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Cys Val His Ala Tyr Arg Ser (SEQ ID NO:1);
Cys Val His Ala Tyr Arg Ala (SEQ ID NO:2);
Cys Val His Ala Phe Arg Ser (SEQ ID NO:3);
Cys Val His Ala Phe Arg Ala (SEQ ID NO:4);
Cys Val His Ser Tyr Arg Ser (SEQ ID NO:5);
Cys Val His Ser Tyr Arg Ala (SEQ ID NO:6);
Cys Val His Ser Phe Arg Ser (SEQ ID NO:7);
Cys Val His Ser Phe Arg Ala (SEQ ID NO:7);
Cys Val His Thr Tyr Arg Ser (SEQ ID NO:9);
Cys Val His Thr Tyr Arg Ala (SEQ ID NO:9);
Cys Val His Thr Tyr Arg Ala (SEQ ID NO:10);
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Cys Val His Thr Phe Arg Ser (SEQ ID NO:11); or Cys Val His Thr Phe Arg Ala (SEQ ID NO:12).

28. (New) An isolated peptide having a sequence selected from:

Cys Val His Ala Tyr Arg Ser (SEQ ID NO:1);

Cys Val His Ala Tyr Arg Ala (SEQ ID NO:2);

Cys Val His Ala Phe Arg Ser (SEQ ID NO:3);

Cys Val His Ala Phe Arg Ala (SEQ ID NO:4);

Cys Val His Ser Tyr Arg Ser (SEQ ID NO:5);

Cys Val His Ser Tyr Arg Ala (SEQ ID NO:6);

Cys Val His Ser Phe Arg Ser (SEQ ID NO:7);

Cys Val His Ser Phe Arg Ala (SEQ ID NO:8);

Cys Val His Thr Tyr Arg Ser (SEQ ID NO:9);

Cys Val His Thr Tyr Arg Ala (SEQ ID NO:10);

Cys Val His Thr Phe Arg Ser (SEQ ID NO:11); and

Cys Val His Thr Phe Arg Ala (SEQ ID NO:12),

wherein the peptide exhibits an antiproliferative activity.

29. (New) A composition comprising an excipient and at least one isolated peptide having a sequence selected from:

Cys Val His Ala Tyr Arg Ser (SEQ ID NO:1);

Cys Val His Ala Tyr Arg Ala (SEQ ID NO:2);

Cys Val His Ala Phe Arg Ser (SEQ ID NO:3);

Cys Val His Ala Phe Arg Ala (SEQ ID NO:4);

Cys Val His Ser Tyr Arg Ser (SEQ ID NO:5);

Cys Val His Ser Tyr Arg Ala (SEQ ID NO:6);

Cys Val His Ser Phe Arg Ser (SEQ ID NO:7);

Cys Val His Ser Phe Arg Ala (SEQ ID NO:8);

Cys Val His Thr Tyr Arg Ser (SEQ ID NO:9);

Cys Val His Thr Tyr Arg Ala (SEQ ID NO:10);

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Cys Val His Thr Phe Arg Ser (SEQ ID NO:11); and Cys Val His Thr Phe Arg Ala (SEQ ID NO:12),

wherein the peptide exhibits an antiproliferative activity.

30. (New) A composition consisting essentially of an isolated peptide selected from the group consisting of:

Cys Val His Ala Tyr Arg Ser (SEQ ID NO:1);
Cys Val His Ala Tyr Arg Ala (SEQ ID NO:2);
Cys Val His Ala Phe Arg Ser (SEQ ID NO:3);
Cys Val His Ala Phe Arg Ala (SEQ ID NO:4);
Cys Val His Ser Tyr Arg Ser (SEQ ID NO:5);
Cys Val His Ser Tyr Arg Ala (SEQ ID NO:6);
Cys Val His Ser Phe Arg Ser (SEQ ID NO:7);
Cys Val His Ser Phe Arg Ala (SEQ ID NO:7);
Cys Val His Ser Phe Arg Ala (SEQ ID NO:8);
Cys Val His Thr Tyr Arg Ser (SEQ ID NO:9);
Cys Val His Thr Tyr Arg Ala (SEQ ID NO:10);
Cys Val His Thr Phe Arg Ser (SEQ ID NO:11); and
Cys Val His Thr Phe Arg Ala (SEQ ID NO:12).